9344

Diag. Cht. No. 1245.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. 7426-40-1-73 Office No. H-9344

LOCALITY

State Florida

General locality Florida East Coast

Locality South of New Smyrna Beach

19 73

CHIEF OF PARTY

Fidel T. Smith

LIBRARY & ARCHIVES

DATE 11-15-74

USCOMM-DC 37022-P66

Chart
8435c
1245-
1111

9344

FORM C&GS-537 (5-66)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

H-9344

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

7426-40-1-73

State Florida

General locality Florida East Coast

Locality South of New Smyrna Beach

Scale 1 : 40000 Date of survey 1973 180-306

Instructions dated March 26, 1973 Project No. OPR 436-746-73

Vessel NOAA Launch 1257/ HFP 746

Chief of party Fidel T. Smith, LCDR, NOAA

Surveyed by Launch personnel

Soundings taken by echo sounder, hand lead, pole Raytheon, DE - 723-40

Graphic record scaled by Launch personnel

Graphic record checked by Launch personnel

Protracted by NA Automated plot by AMC - CALCOMP 618 ~~DEC - PDP-8I~~

Soundings penciled by NA

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ Daytona Beach, Fla. Ga ge

REMARKS: None

applied to stds 1/30/75

USCOMM-DC 37009-P66

DESCRIPTIVE REPORT

OPR-436 HSL 73
H-9344

NOAA Launch 1257
HFP 742

LCDR J. O. Rolland, OIC

INDEX

DESCRIPTIVE REPORT H-9344

A. PROJECT

This survey was conducted as a part of OPR 436-746-73 coasts of Georgia and Florida dated March 26, 1973. Supplemental instructions are as follows:

Supplement #1 - dated May 3, 1973
Supplement #2 - dated May 17, 1973

B. AREA SURVEYED

The area surveyed extends from the northern coastline boundary of Cape Kennedy to about 6 miles south of Ponce de Leon Inlet, Florida and extends off shore an average of 8 miles. The specific geographical boundaries follow:

From	latitude	28°42.5'N	longitude	080°39.7'W
To	"	28°42.5'N	"	080°27.4'W
To	"	29°00.0'N	"	080°51.7'W
To	"	29°00.0'N	"	080°42.4'W

The inclusive dates of this survey are 29 June 1973 thru 2 Nov 1973. This survey junctions with the following prior surveys:

No. 8341	1:20000	1956	
No. 8342	1:20000	1956	
H - 8840	1:80000	1965	
H - 8879	1:80000	1966	
No. 4804	1:40000	1828	(inshore junction)

This survey overlaps with the following prior & contemporary surveys:

No. 4804	1:40000	1928	
4477	1:20000	1925	(small junction inshore at north end of sheet)
4935	1:40000	1929	

C. SOUNDING VESSEL

The NOAA Hi-speed Launch 1257 of HFP 746 was the only vessel used on this boatsheet. This vessel is 59'11" in length and has a draft of 2.7 feet at the transducers. Sounding speed of the vessel was 18-20 kts @1850 rpm's. This was the primary speed run while sounding on this sheet. The transducers rise 0.3 foot above their position when the vessel is dead-in the water. Therefore the settlement & squat correction at this speed is -0.3 foot. This correction is accounted for on the corrector tape printouts. The draft correction is applied in the corrector word on the master tapes. The launch was run at 1300 rpm's on the following days:

289 & 290. The S&Q correction at this speed was deduced to be +0.3 foot by interpolation from the S&Q abstract inserted in this report.

D. SOUNDING EQUIPMENT

A Raytheon Unit DE-723-40 of Model DE 723, SN 37024 was the sounding device used during this survey. Other sounding equipment and equipment used in conjunction with sounding includes the following:

1. Digital Depth Monitor (Raytheon) Unit DE-723-41 of Model DE 723, SN 37016 was used as the interface with the DEC computer.
2. TRACOR - Model 20 Precision Frequency - square Wave-Power Module.
3. Raytheon - Unit 723-42, SN 1910, of Model DE 723, Electronic Cabinet Unit.
4. Raydist DR-S System Navigator, Model ZA-67A, SN 59 for positioning control of the launch.
5. Epsco Strip Chart Recorder.
6. Houston Instruments Complot Plotter.
7. C&GS Hydroplot Controller - Digital Equipment Corporation.
8. C&GS Hydroplot Navigation Unit - Marine Digital Systems, Inc
9. Del Norte Trisponder 202A.
10. Del Norte Trisponder parallel buffer, Model 200 IP1A, SN 117.
11. Del Norte Trisponder 210.

Depths on this boat sheet range between 7-70 feet. Echo sounding corrections were determined by bar check with Beckman TDC data & specific gravity measurements used for comparison. Bar checks were taken only under ideal conditions. Analog and simultaneous digital values were recorded when making the bar checks. Only the digital values were used for determining velocity corrections. Velocity corrections for each 5 foot interval of the bar were determined by finding the difference between the true depth from the transducer to the bar and the digital depth from the transducer to the bar. Finally C&GS form 117 was used to plot the velocity corrections (as determined immediately above) against each 5 foot interval of the bar. A straight line was then "faired" through these points on the graph and extended past 60 feet to 70 feet or 16-17% of the range of the bar checks. Finally, applicable velocity corrections were scaled from this line. These velocity corrections were entered on the TC/TI tape to be applied to an off-line plot by AMC.

A loose card in the Raytheon Electronic Cabinet Unit ~~may have~~ affected soundings on the early work done on this boatsheet. This loose card controlled the digitizing of soundings and when not functioning caused several soundings to be erroneous. These depths were corrected when scanning the fathogram (analog record). There are about 50 soundings on the boatsheet that were affected

in this manner. This data is considered good data.

E. SMOOTH SHEET

The smooth sheet projection is to be made at the Atlantic Marine Center, Norfolk, Virginia, Processing Division.

F. CONTROL

Raydist, in the range-range mode was the device used primarily for positioning the launch horizontally. The following Raydist shore stations were used on this boatsheet for days 180-269 and 289-290:

1. Lag "1973" Green station (Pattern I) - Located by 3rd order transverse
   φ =28° 45' 13.64"
   λ =080° 45' 54.07"

2. Gimlet "1973" Red station (Pattern II) - Located by 2nd order triangulation
   φ =29° 03'59.44"
   λ =080° 54'48.49"

Green station was set up over soft, moist dirt. The station was located about 3 miles inshore and the signal from it had to pass over Mosquito Lagoon. The red station was located over beach sand.

Calibrations were usually taken three times each day. (i.e. one set of calibrations in the morning to set the lane count and determine phase correctors, another set near the middle of the day and a final set of calibrations at the end of hydro in the afternoon. A set of calibrations usually included 6 three point sextant fixes.) Great care was taken in proper identification of calibration signals, calibrating in the working area, adjustment of sextants and obtaining sufficient calibrations to establish a consistency of correctors, (See Electronic Control Calibration forms submitted under separate cover.) Correctors to be entered in the long words of the corrector tape were usually applied by time according to day. This was especially true when running east-west sounding lines. Correctors were not averaged over the day unless they were in very close agreement.

Thunderstorms on a couple of days resulted in lane jumps. When this happened the line was stopped and since the Raydist Navigator could not be calibrated afterwards the Raydist Strip Chart was analyzed to insure that no whole lane errors existed before ending the last line run.

This survey was controlled by Del Norte Trisponder 202A Automatic Distance Measuring System on days 272, 274, 304, 305, and 306. The Trisponder 202A operatea on a frequency of 9350 MHZ. An artificial frequency of 1498.35 KHZ was used for input to the Hydroplot System. This allowed the least significant digit on the DMU interface to be interpreted as one whole meter.

The following shore station arrangement was used for the above days:

Day 272 - signal 164, Edgewater Tank
274 - signal 164, Edgewater Tank
304 - signal 152, Edgewater Tank
305 - signal 144, Edgewater Tank
306 - signal 144, Edgewater Tank (pos. 3274-3324)
306 - signal 148, Edgewater Tank (pos. 3325-3376)

Signal 164 -	=28° 50' 11.00",	=80° 45' 46.79"
152	=28° 52' 56.18",	=80° 47' 35.14"
144	=28°555' 50.14",	=80° 49' 38.95"
148	=28° 54' 24.51",	=80° 48' 33.86"
Edgewater Tank	=28° 57' 47.37",	=80° 54' 12.57"

Fair results were obtained with the Del Norte system on this sheet. (Del Norte was used only for inshore work on the northern and central portion on the sheet). Signals received from the shore station were unstable causing some sounding to be misplotted as much as 50-100 meters. This usually occurred once every 5-10 soundings. These effected soundings were not plotted on course and speed on the semi-smooth plot. The unstableness of the signal also made steering of the launch difficult since the steering needle continuously deflected from full scale left to full scale right. If course and speed were maintained, however, the needle would come back on the scale. Del Norte was calibrated in the same manner as Raydist.

G. SHORELINE

The low water line was not defined due to lack of personnel, insufficient hydrographic signals, inaccessibility to the shoreline and the great amount of time it would take to do it. Also the project instructions specify operations as close to shore as safety permits. The launch sounded inshore to the 12 foot curve on an average. The bottom drops to 12 feet only a few yards offshore.

NO SHORELINE APPLIED TO SMOOTH SHEET

H. CROSSLINES

Crosslines were run to the extent of 10% of the amount of regular lines in nautical miles. The online real time plot was made using Ponce De Leon Inlet tides as predicted tides input. Crosslines agreement was poor as a result. The data wasplotted offline later using Daytona Beach Predicted tides. Crossline sounding discrepancies ranged from 1-2 feet. Fathograms were rescanned at the crossline areas to see if the trouble was in scanning. Most discrepancies were, in fact, due to different scanning methods by launch personnel.

Another explanation of differences might be due to the use of predicted tides.

I. JUNCTIONS

This survey is generally 3-5 foot shoaler than H-8879 at the junction. (Velocity corrections not considered). This survey averages 4 foot shoaler than H-8879. Apparent discrepancies could be due to transferring sounding from the 1:80000 sheet to the 1:40000 sheet, the use of predicted tides instead of smooth tides and the lack of velocity corrections on this sheet. The same could be said for the following surveys to which junctions were made.

This survey is generally 1-5 foot shoaler than the H-8840 survey at the junction. The differences average 4 foot.

This survey is generally 1-4 foot shoaler than No. 8341. It is shoaler on the average by 2-3 foot. No. 8341 is a 1:20000 sheet.

This survey is generally 1-4 foor shoaler than No. 8342 and averages 2 foot shoaler. However, the junction of the two surveys is not extensive enough to reach a definite conclusion on differences. No. 8342 is a 1:20000 survey.

This survey is generally 1-3 foot shoaler than No. 4804 at the inshore junction of the two surveys. Survey No. 4804 was done in 1928 and is a 1:40000 survey. The 1928 survey was controlled offshore by buoys and dead reckoning. Depths were obtained by lead line.

J. COMPARISON WITH PRIOR SURVEYS

The 57 foot Pre-Survey Review Item (Item) at 28° 58.33' N, 80° 45.86' W was disproved. A least depth of 65 foot was found approximately 120-160 meters SE of the center of the item. Recommend 57 foot charted depth be replaced by least depth of 65 foot (plus velocity correction).

The 60 foot item at 28° 56.2, 80° 41.8 was disproved. A 60 foot depth was found approximately 200 meters NE of the item but velocity correction will increase this depth by about 3 foot. Recommend deletion of this sounding from chart.

The 58 foot item at 28° 55.90, 80° 44.73 was disproved. A least depth of 63 foot (plus velocity correction) was found in the vicinity about 100 m north of the item. Recommend deletion of the 58 foot charted depth.

The 58 foot item at 28° 55.22, 80° 43.95 was disproved. The least

depth in vicinity is 59 foot (without velocity correction). Recommend deletion of charted depth.

The 60 foot item at 28°55.08, 080°44.4 was disproved. Recommend moving charted sounding inshore to the 60 foot depth curve.

The 58 foot item at 28°54.8, 080°43.19 was disproved. The least depth in the vicinity is 59 foot (velocity correction not included) found about 180 meters ESE of item. Recommend replacing 58 foot charted sounding with least depth.

The 49 foot item at 28°54.3, 080°40.4 was found about 100 meters north of item. The least depth found there is 47 foot. Recommend charting whichever of these two depths that is the shoalest.

The 49 foot item at 28°53.59, 080°42.09 was verified. Least depths of 47 foot (velocity corrections not included) were found approximately 50 m E of center of item and about 200 meters NNW of item. Recommend charting one of these least depths.

The 60 foot item at 28°52.6, 080°43.57 was disproved (when velocity corrections considered). Recommend deletion of charted depth.

The 55 foot item at 28°53.31, 080°38.1 was verified. The least depth in the vicinity is 51 foot and is approximately 350 meters SSW of item. Recommend charted sounding be deleted from chart and least depth be charted.

The 59 foot item at 28°52.3, 080°38.8 was disproved, if velocity correction considered. Recommend deletion of charted sounding.

The 60 foot item at 28°51.1, 080°42.99 was found about 200 meters south of center of item (57 foot plus velocity correction). Recommend moving charted sounding about 200 m south of present position.

The 58 foot item at 28°50.88, 080°42.22 not found if velocity correction considered. Several 57 foot soundings found in immediate vicinity which are not unusual for the area. These would be almost 60 foot with velocity correction added. Recommend deletion of charted depth.

The 57 foot item at 28°50.58, 080°40.7 (41.1) disproved. Recommend deletion of charted depth.

The 35 foot item at 28°46.32, 080°41.2 (42.0) disproved. Least depth found in vicinity is 47 foot (velocity correction not included). Recommend deletion of 35 foot charted depth.

The 60 foot item at 28°47.19, 080°34.53 found in immediate vicinity. Least depth in a rea is 56 foot approximately 500 meters SW of center of item. Recommend deletion of charted sounding and charting of least depth in its proper position.

The 60 foot item at 28°45.21, 080°33.03 found in immediate vicinity. Least depth of 55 foot found about 150-180 m N of item. Recommend deletion of charted sounding and plotting least depth

The 30 foot item at 28°42.93, 080°39.84 was verified. The least depth found was 28 foot about 50-75 meters due west of the item. Recommend deletion of 30 foot charted depth and replacement by least depth of 28 foot (plus velocity correction).

The 38 foot item at 28°42.33, 080°34.00 was verified. Least depth found was 35 foot about 50 meters NW of center of item. Recommend deletion of charted depth and replacemtnt by least depth of 35 foot (plus velocity correction).

The 28 foot item at 28°54.48, 080°~~34.00~~ 48.02 was disproved. Recommend moving this 28 foot charted sounding inshore to the 28 foot curve or deleting it from the chart.

The 29 foot item at 28°53.39, 080°~~47.32~~ ~~48.02~~ 47.02 was verified. Least depth of 27 foot (velocity correction not included) found about 20-30 meters north of center of item.

The 20 foot item at 28°53.06, 080°47.09 was not found but was not disproved. Area was not developed other than by regular sounding spacing. Recommend keeping charted sounding since it was not disproved.

The 29 foot item at 28°52.68, 080°46.86 was verified. The area was not developed other than by regular 190 meter sounding line spacing. Recommend plotting least depth of 29-30 feet at position 2849 or 2849 1st out. (These soundings are about 170-200 meters east of item).

Other areas were developed other than the Pre-Survey Review Items. Recommend charting the following least depths on these developments:

1. Least depth of 31 foot (plus velocity correction) at 28°56.89, 080°46.51. This depth and its position is very close to 34 foot charted depth.

2. Least depth of 47 foot at 28°54.14, 080°42.3.

3. Least depth of 45 foot at 28°53.78, 080°40.30.

The following contemporary or prior surveys were used for comparison: H-4935 and H-4804.

1. H-4935, 1:40000, 1929 - These depths are generally 4 foot deeper than the current survey and range between 0-6 foot deeper.

2. H-4804, 1:40000, 1928 - Depths are generally 3-4 foot deeper than the current survey.

The reason and/or explanation for the above differences are the following:

1. Velocity corrections not yet applied to current survey.
2. Out-dated methods used on old surveys (i.e., the older surveys were controlled by dead reckoning and buoy positioning off shore. Line spacing was extensive. Depths were obtained by lead line).
3. The surveys are 44 and 45 years old respectively and the bottom has changed.

K. COMPARISON WITH THE CHART

The chart used for comparison is chart 1245, 9th edition, May 26, 1973. Differences appear to range between 0-2 ft inshore and 4-5 ft off shore (velocity corrections not considered). Depth comparison is difficult to make without velocity corrections applied to the new survey. The only newly found dangers to navigation are those least depths listed in paragraph J under Pre-Survey Review and other developments.

L. ADEQUACY OF SURVEY

This survey is complete and adequate to supercede prior surveys for charting. The inshore area at the north end of the sheet is adequate but somewhat substandard because of the use of Del Norte for Electronic Control.

M. AIDS TO NAVIGATION

None.

N. STATISTICS

NOAA.Launch 1257 was the only vessel used on the sheet.

Total no. of positions	=3376
Total no. of nautical miles of sounding line	=1822.6
Total no. of square nautical miles in area	=145
No. of tide stations	=1 (already existed)
Total no. of bottom samples obtained	~~=90~~ ?
No. of miles of regular sounding line	=1648.6
No. of n. miles of crossline	=158.1
No. of n. miles of development	=31.9
Total n. miles of miscellaneous mileage	=345.4
Total n. miles to & from the work area	=1061

O. MISCELLANEOUS

None.

P. RECOMMENDATIONS

None.

Q. REFERENCE TO REPORTS

Reports, records or forms not included in the descriptive report are the following:

1. Fathograms
2. Printouts of master and corrector tapes
3. Master and corrector tapes
4. R aydist Brush Recorder strip charts
5. "Soundings" volume
6. Electronic Control Correctors Abstract - Raydist and Del Norte
7. 1:40000 semi-smooth plot of boatsheet
8. Three 1:20000 mylar semi-smooth plotsheets of inshore work, pre-survey review items, developments, bottom samples
9. Printouts of predicted tides for Ponce de Leon Inlet and Daytona Beach, Florida
10. Electronic control calibration forms
11. Predicted tide tapes for Daytona Beach

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

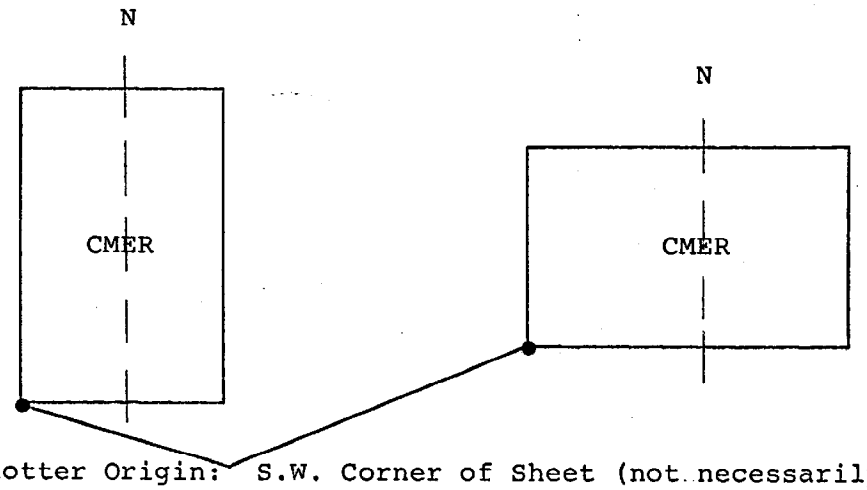
1. Project No. OPR 436
2. Reg. No. H-9344
3. Field No. 7426-40-1-73
4. Requested By WLA
5. Ship or Office HFP 746
6. Date Required ASAP

7. Polyconic [X] Modified Transverse Mercator [ ]
8. Central Meridian of Projection 80 ° ~~58~~ 40 ' 00 "
9. Survey Scale: 1: 40000
10. Size of Sheet (check one):

    36 x 54 [ ] 36 x 60 [X] Other [ ] Specify _____

11. Sheet Orientation (check one):

    NYX = 1 [ ] NYX = ø [X]



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

    Latitude ~~28~~ 25 ° 42 ' 00 "

    Longitude 80 ° ~~26~~ 5 ' 00 "

13. G.P.'s of triangulation and/or signals attached [X]
14. Material Desired: Tracing Paper [ ] Mylar [ ]

    Smooth Sheet [X] Other [ ] Specify _____

15. Remarks: _____

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR- 436 2. Reg. # H- 9344 3. Field # 7426-40-1-73

4. Type of Control Raydist Type 21 & 23 (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 3306.400 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [X] Range-Visual [ ]

Range One (R_1) Station I.D.	Green Lag	Lat.	28 °	45 '	13.64 "
		Long.	80 °	45 '	54[illegible].07 "
Range Two (R_2) Station I.D.	Red Gimlet	Lat.	29 °	03 '	59.44 "
		Long.	80 °	54 '	48.49 "

Hyperbolic (3-station) [ ] Hyper-Visual [ ]

Slave One Station I.D.		Lat.	°	'	"
		Long.	°	'	"
Master Station I.D.		Lat.	°	'	"
		Long.	°	'	"
Slave Two Station I.D.		Lat.	°	'	"
		Long.	°	'	"

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [X] A=Ø

Survey area is to observer's Left [ ] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left.

Slave Two must be to observer's Right.

8. [X] This form is submitted as an aid in preparing a boat sheet.

[ ] This form applies to all data on this survey.

[X] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)		
1257	153150Z	180	153344	269	1	to	2773
1257	160501	289	201007	290	3027	to	3126
-	-	-	-	-	-	to	-

9. Remarks: None

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4-6-71

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR- 436 2. Reg. # H- 9344 3. Field # 7426-40-1-73

4. Type of Control Del Norte Type 22 (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 1498.35 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [X]

Range One (R_1)
Station I.D. Signal 164
Range Two (R_2)
Station I.D. Edgewater Tank

Range-Visual [ ]

Lat. 28 ° 50 ' 11.00 "
Long. 80 ° 45 ' 46.79 "
Lat. 28 ° 57 ' 47.37 "
Long. 80 ° 54 ' 12.57 "

Hyperbolic (3-station) [ ]

Slave One
Station I.D. _____
Master
Station I.D. _____
Slave Two
Station I.D. _____

Hyper-Visual [ ]

Lat. ___ ° ___ ' ___ "
Long. ___ ° ___ ' ___ "
Lat. ___ ° ___ ' ___ "
Long. ___ ° ___ ' ___ "
Lat. ___ ° ___ ' ___ "
Long. ___ ° ___ ' ___ "

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [X] A=Ø

Survey area is to observer's Left [ ] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left.

Slave Two must be to observer's Right.

8. [X] This form is submitted as an aid in preparing a smooth sheet.

[ ] This form applies to all data on this survey.

[X] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)	
1257	143733	272	180632	274	2774	to 3026
						to
						to

9. Remarks: None

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-436 2. Reg. # H- 9344 3. Field # 7426-40-1-73

4. Type of Control: Del Norte Type 24 (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 1498.35 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [X]

Range One (R_1)
Station I.D. Signal 152
Range Two (R_2)
Station I.D. Edgewater Tank

Range-Visual [ ]

Lat. 28 ° 52 ' 56.18 "
Long. 80 ° 47 ' 35.14 "
Lat. 28 ° 57 ' 47.37 "
Long. 80 ° 54 ' 12.57 "

Hyperbolic (3-station) [ ]

Slave One
Station I.D. _____
Master
Station I.D. _____
Slave Two
Station I.D. _____

Hyper-Visual [ ]

Lat. ____ ° ____ ' ____ "
Long. ____ ° ____ ' ____ "
Lat. ____ ° ____ ' ____ "
Long. ____ ° ____ ' ____ "
Lat. ____ ° ____ ' ____ "
Long. ____ ° ____ ' ____ "

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [ ] A=Ø

Survey area is to observer's Left [ ] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. [X] This form is submitted as an aid in preparing a smooth sheet.

[ ] This form applies to all data on this survey.

[X] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)		
1257	173819	304	195549	304	3127	to	3197
						to	
						to	

9. Remarks: _____

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2-22-71

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR- 436 2. Reg. # H-9344 3. Field # 7426-40-1-73

4. Type of Control: Del Norte Type 25 (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 1498.35 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [X] Range-Visual [ ]

Range One (R_1) Station I.D.	Signal 144	Lat.	28 ° 55 ' 50.14 "
		Long.	80 ° 49 ' 38.95 "
Range Two (R_2) Station I.D.	Edgewater Tank	Lat.	28 ° 57 ' 47.37 "
		Long.	80 ° 54 ' 12.57 "

Hyperbolic (3-station) [ ] Hyper-Visual [ ]

Slave One Station I.D.		Lat.	° ' "
		Long.	° ' "
Master Station I.D.		Lat.	° ' "
		Long.	° ' "
Slave Two Station I.D.		Lat.	° ' "
		Long.	° ' "

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [X] A=Ø

Survey area is to observer's Left [ ] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. [X] This form is submitted as an aid in preparing a smooth sheet.

[ ] This form applies to all data on this survey.

[X] This form applies to part of the data on this survey.

Vessel EDP #	From Time	Day	To Time	Day	Position Numbers (inclusive)		
1257	140820	305	154740	306	3205	to	3324
						to	
						to	

9. Remarks: _____

CFN3-2
2-22-71

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-436 2. Reg. # H-9344 3. Field # 7426-40-1-73

4. Type of Control: Del Norte Type 26 (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 1498.35 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [X] Range-Visual [ ]

Range One (R_1)
Station I.D. Signal 148
Range Two (R_2)
Station I.D. Edgewater Tank

Lat. 28° 54' 24.51"
Long. 80° 48' 33.86"
Lat. 28° 57' 47.37"
Long. 80° 54' 12.57"

Hyperbolic (3-station) [ ] Hyper-Visual [ ]

Slave One
Station I.D. _____
Master
Station I.D. _____
Slave Two
Station I.D. _____

Lat. ____° ____' ____"
Long. ____° ____' ____"
Lat. ____° ____' ____"
Long. ____° ____' ____"
Lat. ____° ____' ____"
Long. ____° ____' ____"

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [X] A=Ø

Survey area is to observer's Left [ ] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. [X] This form is submitted as an aid in preparing a smooth sheet.

[ ] This form applies to all data on this survey.

[X] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)		
1257	164320	306	182617	306	3325	to	3376
						to	
						to	

9. Remarks: _____

01/02/74

REG =H 9344 NO OF CONTROL PARAMETER SETS = 6

CONTROL TYPE = 21
CMER = 80 40 0.000
S1LAT = 28 45 13.640
S1LON = 80 45 54.070
S2LAT = 29 3 59.440
S2LON = 80 54 48.490
Q = 3306.400
A = 0

LAG 1973 RED(AMC) GREEN PATT 1
GIMLET 1973 BLUE(AMC) RED PATT 2

Same

CONTROL TYPE = 22
CMER = 80 40 0.000
S1LAT = 28 50 11.000
S1LON = 80 45 46.790
S2LAT = 28 57 47.370
S2LON = 80 54 12.570
Q = 1498.350
A = 0

CONTROL TYPE = 23
CMER = 80 40 0.000
S1LAT = 28 45 13.640
S1LON = 80 45 54.070
S2LAT = 29 3 59.440
S2LON = 80 54 48.490
Q = 3306.400
A = 0

CONTROL TYPE = 24
CMER = 80 40 0.000
S1LAT = 28 52 56.180
S1LON = 80 47 35.140
S2LAT = 28 57 47.370
S2LON = 80 54 12.570
Q = 1498.350
A = 0

CONTROL TYPE = 25
CMER = 80 40 0.000
S1LAT = 28 55 50.140
S1LON = 80 49 38.950
S2LAT = 28 57 47.370
S2LON = 80 54 12.570
Q = 1498.350
A = 0

CONTROL TYPE = 26
CMER = 80 40 0.000
S1LAT = 28 54 24.510
S1LON = 80 48 33.860
S2LAT = 28 57 47.370
S2 Lon = 80 54 12.570

TIMES OF HYDROGRAPHY

Day	Date	Time Begin	Time End	Pos. From	Pos. To
180	6/29/73	153150	164743	1	20
187	7/6	175704	184928	21	44
192	7/11	132415	195620	45	218
194	7/13	133047	180151	219	327
197	7/16	131411	201947	328	481
199	7/18	142529	184616	482	567
204	7/23	131309	193029	568	700
205	7/24	133626	201607	701	820
206	7/25	143848	193713	821	914
207	7/26	131129	172519	915	1022
208	7/27	143029	174801	1023	1107
211	7/30	142846	174211	1108	1194
212	7/31	141451	191928	1195	1310
214	8/2	133310	184408	1311	1439
215	8/3	135356	172051	1440	1529
218	8/6	134622	170626	1530	1598
219	8/7	132242	182858	1599	1718
220	8/8	131959	181725	1719	1837
221	8/9	141458	181939	1838	1931
222	8/10	134200	182134	1932	2045
225	8/13	130523	181952	2046	2075
226	8/14	145441	181035	2076	2090
227	8/15	131842	185558	2091	2120
228	8/16	140111	181425	2121	2241
229	8/17	161930	181204	2242	2256
232	8/20	131741	175514	2257	2389
233	8/21	131858	184213	2390	2542
235	8/23	151024	165438	2543	2587
264	9/21	140316	174034	2588	2659
268	9/25	152845	191008	2660	2738
269	9/26	133517	153344	2739	2773
272	9/29	143733	170057	2774	2878
274	10/1	132830	180632	2883	3026
289	10/16	160501	185752	3027	3074
290	10/17	150746	201007	3075	3126
304	10/31	173819	195549	3127	3197
305	11/1	140820	162326	3205	3273
306	11/2	135606	182617	3274	3376

TIDE NOTE

1. Project No: OPR 436 2. Vessel/Field Unit: NOAA Launch 1257/HFP746
3. Year: 1973 4. Meridian Time Zone: +4(June-Oct.27) +5(Oct:
5. Tide Station Name: Daytona Beach, Ocean
6. Position: Lat. 29 ° 08.8N ' Long. 80 ° 57.7W '
7. Plane of Reference: [X] MLW, [ ] MLLW corresponds to _____ feet on the tide staff for the period _____.
8. Hourly Heights: [X] Standard Gauge, furnished from Rockville.
   [ ] Scaled and logged from field marigrams.
9. Tidal Zoning: [X] Not applicable.
   [ ] By two or more gauges automatically zoned.
   [ ] By applying tidal differences and constants for the area(s): a. _____

TIME (Hour, Minute)		HEIGHT (Feet)		HEIGHT RATIO (If Applicable)	
High Water	Low Water	High Water	Low Water	High Water	Low Water

b. _____

TIME (Hour, Minute)		HEIGHT (Feet)		HEIGHT RATIO (If Applicable)	
High Water	Low Water	High Water	Low Water	High Water	Low Water

c. Include additional areas on separate sheet(s).

10. Remarks: NONE

LIST OF SIGNALS

100	29	04	4930	080	55	4181	PONCE DE LEON INLET LIGHT HOUSE CENTER 1934 3rd ORDER TRIANGULATION
104	29	03	5944	080	54	4849	GIMLET "RAYDIST" 1956 2nd ORDER TRIANGULATION
112	29	02	1259	080	54	0116	CORONADO BEACH, SILVER WATER TANK, FINIAL 1949 (NOT USED)
116	29	00	0590	080	52	2479	SIESTA DEL SOL CONDOMINIUM 3RD ORDER TRAVERSE
120	28	59	0417	080	51	4579	WHITE CHIMNEY 3RD ORDER TRAVERSE
124	28	57	5068	080	50	5516	"A" FRAME HOUSE 3RD ORDER TRAVERSE
128	28	57	3038	080	50	4252	BROWN ROOF GABLE HOUSE 3RD ORDER TRAVERSE
132	28	56	4955	080	50	1398	RED BRICK CHIMNEY 3RD ORDER TRAVERSE
136	28	56	2386	080	49	5457	"A" FRAME HOUSE (NORTH) 3RD ORDER TRAVERSE
140	28	56	2256	080	49	5381	"A" FRAME HOUSE (SOUTH) 3RD ORDER TRAVERSE
144	28	55	5014	080	49	3895	TURTLE MOUND 1874-1934 2nd ORDER TRIANGULATION
148	28	54	2451	080	48	3386	ELDORA 1934 2nd ORDER TRIANGULATION
152	28	52	5618	080	47	3514	MOUNT 1934 2nd ORDER TRIANGULATION
156	28	51	2955	080	46	3688	~~FLAG~~ LAGOON 1934 1ST ORDER TRIANGULATION
160	28	45	1364	080	45	5407	LAG "RAYDIST" 1973 3RD ORDER TRAVERSE
164	28	50	1100	080	45	4679	ORANGE BANNER 3RD ORDER TRAVERSE
168	28	49	1151	080	45	0942	ORANGE BANNER 3RD ORDER TRAVERSE
172	28	48	2771	080	44	3993	ORANGE BANNER 3RD ORDER TRAVERSE
176	28	47	1104	080	43	4924	ORANGE BANNER 3CD ORDER TRAVERSE
180	28	46	0125	080	43	0305	ORANGE TRIPOD 3RD ORDER TRAVERSE
184	28	45	2393	080	42	3702	ORANGE BANNER 3RD ORDER TRAVERSE
188	28	44	1696	080	41	4939	KLONDIKE 1934 2nd ORDER TRIANGULATION
192	28	43	1232	080	40	5526	TELEPHONE POLE PLATFORM 3RD ORDER TRAVERSE
196	28	41	2631	080	39	3235	IPPER - 3RD ORDER TRIANGULATION

~~[illegible] LATER TANK, CENTER~~

EDGEWATER TANK NORTH, 1973 → $\phi = 28° 57' 47.37$ $\lambda = 80° 54' 12.57$

TRA CORRECTOR/TABLE INDICATOR TAPE
(TC/TI)

000000 0 0000 0001 180 ~~748600~~ 1257 009344

VELOCITY TABLE TAPE

000036 1 0002 0001 000 ~~748600~~ 1257 009344
000074 0 0000
000110 0 0002
000147 0 0004
000164 0 0006
000221 0 0008
000258 0 0010
000296 0 0012
000332 0 0014
000369 0 0016
000446 0 0018
000444 0 0020
000481 0 0022
000519 0 0024
000556 0 0026
000593 0 0028
000630 0 0030
000667 0 0032
000704 0 0034
999999 0 0034

SETTLEMENT AND SQUAT CORRECTION

TIME	RPM'S	PASS#1	PASS#2	PASS#3	MEAN	TIDE CORRECTION	NEW MEAN	SETTLEMENT &SQUAT CORRECTION
9:35	stop	8.68	8.60	8. 69	8.68	0	8.68	.00
	600	8.70	8.75	-	8.72	-.01	8.71	+.03
9:50	1100	9.15	9.14	9.05	9.11	-.023	9.09	+.41
	1850	8.40	8.50	-	8.45	-.04	8.40	-.28
10:15	stop	8.74	8.73	-	8.74	-.06		

6 1/2

NOAA FORM 75-44
(11-72)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
NOAA LAUNCH 1257	OPR 436	1973	H-9344	Bill Adams	14 Aug 73

SERIAL NO.	DATE 1973	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH Feet (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
2046	13 Aug	28°59'15.0"	80°50'54.6"	42	5 lb.	1"		br	fne br S	BS # 1	DM
47	"	56'06.8"	88°49'58.7"	47	"	"		blk	dk bk M	2	DM
48	"	56'49.3"	88°49'20.6	40	"	"		br	brk Sh & fne br S	3	DM
49	"	55'39.4"	48'33.4"	41	"	"		blk	dk bk M	#4	DM
50	"	54'30.1"	47'41.7"	42	"	"		blk	brk Sh Rk & M	5	DM
51	"	53'15.1"	47'00.8"	37	"	"		br	dk br S & M & brk Sh	#6	DM
52	"	52'06.2"	46'15.7"	36	"	"		br	fne dk br S	#7	DM
53	"	50'58.0"	45'27.4"	38	"	"		br	dk br S	8	DM
54	"	49'45.3"	44'39.3"		"	"		blk	fne bk & br S	BS # 9	DM
55	"	48'35.4"	43'50.1"	37	"	"		gy	fne gy S	10	DM
56	"	47'27.1"	43'00.9"	40	"	"			brk Sh	11	DM
57	"	46'13.6"	42'13.3"	41	"	"			brk Sh	12	DM
58	"	45'00.8"	41'22.8"	39	"	"		br	fne br S & brk Sh	13	DM
59	"	43'56.3"	40'33.3"	33	"	"		br	crs br S & brk Sh	14	DM
60	"	42'46.5"	39'40.3"	36	"	"		br	fne br S & brk Sh	15	SB
61	"	42'50.9"	37'59.2"	37	"	"		blk	dk bk M	16	SB
62	"	43'56.2"	38'45.9"	41	"	"		br	md br S & brk Sh	17	SB

Use more than one line per sample if necessary.

☆ U.S. G.P.O. 1972-769-565/530 REG. #6

NOAA FORM 75-44
(11-72)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
NOAA launch 1257	OPR436	1973	H-9344	Bill Adams	14 Aug. 73

SERIAL NO.	DATE 1973	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH FEET (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
2063	13 Aug	28 45 13.6	38 39 31.7	45	5 lb	1"		brown	dk br S & brk Sh	BS # 18	SB
64	"	46 19.2	46 23.2	49	"	"		brown	md br S & brk Sh	19	SB
65	"	47 22.5	41 07.9	51	"	"			brk Sh	20	SB
66	"	48 38.4	42 01.3	52	"	"		brown	fne br S & brk Sh	21	SB
67	"	49 47.6	42 53.0	53	"	"		brown	md dk br S & brk Sh	22	SB
68	"	51 03.1	43 38.8	55	"	"		brown	md br S & brk Sh	23	SB
69	"	52 15.8	44 28.8	55	"	"		brown	fne br S & brk Sh	24	SB
70	"	53 20.8	45 18.4	55	"	"		brown	fne dk br S & brk Sh	25	SB
2071	"	54 30.8	46 01.8	56	"	"		brown	fne br S & brk Sh	26	SB
2072	"	55 44.5	46 52.5	56	"	"		brown	md br S & brk sh	27	SB
73	"	56 51.3	47 46.1	57	"	"		brown	fne br S & brk Sh	28	SB
74	"	58 03.8	48 32.0	58	"	"		black	sft bk M & fne br S	29	SB
75	"	59 14.0	49 20.4	57	"	"		brown	fne br S & brk Sh	30	SB
76	14 AUG	59 10.6	47.44.3	57	"	"		brown	fne br S & brk. Sh	BS # 31	DM
77	"	58 02.4	47.00.7	51	"	"			brk Sh	32	DM
78	"	56 23.6	46 10.9	48	"	"		brown	md br S & sml brk Sh	33	DM
79	"	55 46.1	45 10.5	58	"	"		brown	fne br S & brk Sh	34	DM

Use more than one line per sample if necessary.

☆ U.S. G.P.O. 1972-769-565/530 REG. #6

NOAA FORM 75-44
(11-72)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
NOAA Launch 1257	OPR436	1973	H-9394	Bill Adams	14 Aug 73

SERIAL NO.	DATE 1973	SAMPLE POSITION LATITUDE 28°	SAMPLE POSITION LONGITUDE 80°	DEPTH FEET (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
2080	14 Aug	54 32.5	44 23.5	58	#516	1"		br	fne br S & brk Sh	BS 35	DM
81	"	53 21.5	43 34.2	57	"	"		br	fne br S & brk Sh	36	DM
82	"	52 13.2	42 45.2	58	"	"		br	md br S & brk Sh	37	SB
83	"	51 04.9	41 56.2	58	"	"		br	md br S & sml brk Sh	38	SB
84	"	49 50.5	41 08.2	59	"	"		br	md br S & brk Sh	39	SB
85	"	48 40.0	40 22.3	56	"	"		br	brk Sh & crs br S	40	SB
86	"	47 28.3	39 34.6	55	"	"		br	brk Sh & md br S	41	SB
87	"	45 06.9	37 59.2	50	"	"		br	md br S & brk Sh ~~brk Sh & md br S~~	42	SB
88	"	43 52.8	37 14.1	47	"	"		blk	fne blk S & bkn Sh	43	SB
89	"	42 46.4	36 22.2	44	"	"		br	bkn Sh & med br S.	44	SB
90	"	46 14.3	38 41.2	53	"	"		br	md br S & brk Sh	45	WB
91	15 Aug 73	59 12.4	46 10.8	66	"	"		br	sft fne br S	46	SB
92	"	57 58.2	45 15.8	66	"	"		br	fne br S & brk Sh	47	SB
93	"	56 49.1	44 29.0	66	"	"		br	md br S & brk Sh	48	SB
94	"	55 36.3	43 44.8	63	"	"		br	~~med~~ fne br S & brk Sh	49	SB
95	"	54 26.8	42 59.0	61	"	"		br	md br S & brk Sh	50	SB
96	"	53 16.0	42 10.9	55	"	"		br	fne br S & fne brk Sh	51	SB

Use more than one line per sample if necessary.

☆ U.S. G.P.O. 1972-769-565/530 REG.#6

NOAA FORM 75-44
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
NOAA LAUNCH 1257	OPR436	1973	H-9344	Bill Adams	15 Aug 73

SERIAL NO.	DATE 1973	SAMPLE POSITION LATITUDE 28°	SAMPLE POSITION LONGITUDE 80°	DEPTH feet (fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
2097	15 AUG	52 04.3	41 18.9	57	5 lbs	1"		br	fne br S	BS #52	SB
98	"	54 09.6	45 45.4	60	"	"		br	fne br S	53	SB
99	"	49 41.6	39 40.5	58	"	"		br	Sh & fne br S	54	SB
2100	"	48 35.1	38 51.2	59	"	"		br	brk Sh & fne br S	55	SB
01	"	47 18.4	37 59.6	58	"	"		br	br Sh & md br S	56	SB
02	"	46 13.8	37 17.4	57	"	"		gy	crs gy S & brk Sh	57	BA
03	"	45 01.0	36 28.1	56	"	"		br	md br S	58	BA
04	"	43 52.1	35 33.9	53	"	"		gy	md gy S & brk Sh	59	BA
05	"	42 40.7	35 45.8	49	"	"		br	br brk Sh	60	BA
06	"	42 49.0	33 05.8	54	"	"		gy	md gy S & brk Sh	61	DM
07	"	43 59.8	34 00.1	52	"	"		gy	fne brk Sh & gy S.	62	DM
08	"	45 25.5	35 03.6	53	"	"		gy	Sh & 2 STARFISH	63	DM
09	"	46 26.8	35 47.2	56	"	"		br	brk Sh & cor br S	64	DM
10	"	47 13.6	36 41.9	53	"	"		gy	cor gy S & brk Sh	65	DM
11	"	48 33.0	37 23.0	57	"	"		br	fne br S & Sh	66	DM
12	"	49 43.0	38 05.6	60	"	"		gy	fne gy S	67	DM
13	"	50 56.0	38 57.2	58	"	"		gy	fne gy S.	68	DM

Use more than one line per sample if necessary.

☆ U.S. G.P.O. 1972-769-565/530 REG. #6

NOAA FORM 75-44
(11-72)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
NOAA Launch 1257	OPR 436	73	H-9344	Bill Adams	15 Aug 23

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE 28°	SAMPLE POSITION LONGITUDE 80°	DEPTH	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
2114	Aug 15,73	57482	43484	47	5 lbs	1"		gy	fne gy S & blk S	# 69 Bottom Sample	DM
2115	"	5321.1	4040.1	57	"	"		gy	fne gy S & brk S	70	DM
2116	"	54 259	4119.8	59	"	"		gy	fne gy S & brk S	71	DM
2117	"	55 419	4213.9	61	"	"		gy	fne gy S	72	DM
2118	"	56 563	4310.3	54	"	"		gy	fne gy S	73	DM
2119	"	5754.8	4347.0	56	"	"		br	fne br S	74	DM
2120	"	59 11.0	4433.5	62	"	"		br	crs br S & brk Sh	75	DM
2121 (42)	Aug 17	4246.2	3138.8	58	"	"		br	Sh & crs br S	76	SB
2122 (43)	"	4246.5	3008.7	58	"	"		br	md br S	77	SB
2123 (44)	"	4349.8	3059.4	54	"	"		br	crs br S	78	SB
2124 (45)	"	4351.3	3218.1	57	"	"		br	sml brk Sh & crs br S	79	SB
2125 (46)	"	4506.2	3144.2	60	"	"		br	Sh & crs br S	80	SB
2126 (47)	"	4509.0	3310.3	58	"	"		br	sml brk Sh & crs br S	81	SB
2127 (48)	"	4620.4	3402.1	59	"	"		br	sml brk Sh crs br S & WD	82	SB
2128 (49)	"	4729.4	3447.5	58	"	"		br	crs br S & brk Sh	83	SB
2129 (50)	"	48.38.7	3541.2	57	"	"		br	Sh & crs br S	84	SB
2130 (51)	"	5311.3	3855.4	62	"	"		br & gy	fne br & gy S & sml Sh	85	SB

Use more than one line per sample if necessary.

☆ U.S. G.P.O. 1972-769-565/530 REG. #6

NOAA FORM 75-44
(11-72)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
NOAA LAUNCH 1259	OPR436	73	H-9344		

SERIAL NO.	DATE 1973	SAMPLE POSITION LATITUDE 28°	SAMPLE POSITION LONGITUDE 80°	DEPTH feet (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
2252	Aug 17	54 29.9	3946.0	61	5 lbs	1"		gy	fne gy S	BS #86	SB
2253	"	55 42.4	4034.7	54	"	"		gy	fne gy S	87	SB
2254	"	56 49.4	41 19.8	60	"	"		br	Sh & fne br S	88	SB
2255	"	58 00.4	4210.7	58	"	"		br	fne br & gy S	89	SB
2256	"	59 10.9	4258.2	53	"	"		br	crs br S & sml Sh	90	SB

Use more than one line per sample if necessary.

☆ U.S. G.P.O. 1972-769-565/530 REG. #6

INFORMATION SHEET

The following data tapes have been edited:

Day 197-original master tape has 20 minute time error. Use edited tape for plotting.

Day 212-original master tape has time error after position 1235. Edited tape has time error before position 1235.

Day 228-Use edited tape for plotting.

Day 268-original master tape has data missing from end(Part 1). Tape was edited and original data appended to it from printout. Use edited tape for plotting.

Day 274-day word missing on front of master tape

Day 272-original master tape has 1 hour time error and missing data on end of it. Use edited tape for plotting.

Other information:

Day 304-off Daylight savings time. GMT correction changes from +4 to +5.

Day 306-used two combinations of Del Norte shore stations on this day. See master tape hardcopy printout.

SIGNATURE SHEET

This survey was conducted under my direct supervision and is complete and adequate for transferral to the Atlantic Marine Center Processing Office.

Fidel T. Smith
LCDR, NOAA
Chief of Party

2/20/74

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTPATION
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): Daytona Beach, Florida

Period: June 29 - November 2, 1973

HYDROGRAPHIC SHEET: H-9344

OPR: 436

Locality: Off coast of Northern Florida

Plane of reference (mean ~~lower~~ low water): 2.1 ft.

Height of Mean High Water above Plane of Reference is 4.0 ft.

Remarks: Zone directly on Daytona Beach.

James R Hubbard
for
Chief, Tides Branch

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H-9344

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~haxxaxx~~ been made. A new final sounding printout has/~~haxxaxx~~ been made.

Date: November 11, 1974

Signed: William L. Jonns

William L. Jonns
Title: Chief, Verification Branch

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: November 11, 1974

Signed: C. Dale North Jr.

C. Dale North, Jr., LCDR, NOAA
Title: Chief, Processing Division

NOAA FORM 76-155
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

SURVEY NUMBER

H-9344

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
ATLANTIC OCEAN										1
TURTLE MOUND										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
						Approved				19
						Chas. L. Harrington				20
						Staff Geographer				21
						10 Feb. 1975				22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

☆ U.S. G.P.O. 1972-769-565/516 REG.#6

VERIFICATION NOTES
Survey H-9144

This appears to be an excellent basic survey. Soundings are in good agreement at crossings and the depth curves adequately delineate the bottom beyond the 18 foot curve. Some difficulty was experienced in accurately placing the 12 and 18 foot depth curves on this 1: 40,000 scale survey.

Because two (2) types of electronic control were used, Raydist and Del Norte, the Raydist arcs were plotted on the position overlay and the Del Norte arcs were plotted on a second overlay to accompany the smooth sheet.

Norfolk, Virginia
November 13, 1974

William L. Jonns
Chief, Verification Branch
AMC

NOAA FORM 77-27
(9-72)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. H-9344

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & 3-Overlays	1	BOAT SHEETS	1
DESCRIPTIVE REPORT	1	OVERLAYS	3

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
Accordian File ENVELOPES	1					1
CAHIERS	1		1			
VOLUMES	1					
BOXES			1/2-Bundle Raw Data F/O.			1

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

Electronic Control (Visual Calibration of Del Norte and Raydist)

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				3376
POSITIONS CHECKED		337		
POSITIONS REVISED		54		
DEPTH SOUNDINGS REVISED		350		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		5		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS		5		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		19		
SPECIAL ADJUSTMENTS				
ALL OTHER WORK		146		
TOTALS		170		

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY: B.J. Stephenson, D. Calland	Jan. 24, 1974	May 1, 1974
VERIFICATION BY: R. Cram	Oct. 23, 1974	Nov. 5, 1974
REVIEW BY:		

* U.S. G.P.O. 1972-769-562/439 REG.#6

NOAA FORM 76-97
(2-72)
(PRES. BY HYDROGRAPHIC MANUAL, 6-94)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

VERIFIER'S REPORT

HYDROGRAPHIC SURVEY, H9344

INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

CL - Check List Items: should be checked as having been completed during the verification processes.

R - Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT	CL	R
Note: The verifier should first read the Descriptive Report for general information and problems.		
1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None	X	
2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None	X	
3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None	X	
Part II - SHORELINE AND SIGNALS		
4. Source of shoreline signals Remarks Required: -- List all surveys	NA	
a. Give earliest and latest dates of photographs		
b. Field inspection date		
c. Field Edit date		
d. Reviewed-Unreviewed		
5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.	NA	
6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None	X	
7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.	X	
Part III - JUNCTIONS		
Note: Make a cursory comparison preliminary to inking soundings in area of overlap.	X	
8. All junctions of contemporary or overlapping sheets were compared and overlapping curves were made identical. Remarks Required: -- None		
9. The notation in slanted lettering "JOINS H---- (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: -- None	X	

Part III - JUNCTIONS (Continued)	CL	R
10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of **Butt** junctions and areas which are **SUPERSEDED.**	X	
Part IV - VOLUMES		
11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None	X	
12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following:	X	
(a) rocks		
(b) line turns		
(c) position values of beginning and ending of lines		
(d) bar check or velocity correctors		
(e) time recording		
(f) notes or markings on fathograms		
(g) was reduction of soundings accurately done?		
(h) was scanning accurate?		
(i) were peaks at uneven intervals missed?		
(j) were stamps completed?		
(k) references to adjacent features		
Part V - MACHINE PLOTTING		
13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None	X	
14. The plotting of all unsatisfactory crossings was verified. Remarks Required: -- None	X	
15. All detached positions locating **critical** soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None	X	

Part V - PROTRACTING (Continued)	CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.	NA	
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.	NA	
Part VI - SOUNDINGS		
18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None	X	
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.	X	
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None	X	
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None	X	
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: — Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.	X	
Part VII - CURVES		
23. The depth curves have been inspected **before** inking. Remarks Required: -- By whom was the penciled curves inspected.	X	
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area **not sounded** in black dashed Remarks Required: -- None	NA	
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.	NA	

Part VIII - AIDS TO NAVIGATION	CL	R
26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey. Remarks Required: -- Conflicts of any nature listed.	NA	
27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification. Remarks Required: -- None		
Part IX - BOATSHEET		
28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None	X	
29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.	NA	
Part X - GENERAL		
30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2). Remarks Required: -- None	X	
31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None	X	
32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet. Remarks Required: — None	X	
33. The bottom characteristics are adequately shown. Remarks Required: -- None	X	
Part XI - NOTES TO THE REVIEWER		
34. Unresolved discrepancies and questionable soundings.	NA	
35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.	NA	
36. Supplemental information.		

Verified by	Date
R. Cram	Nov. 5, 1974

* U.S. G.P.O. 1972-769380/540 REG.#6

Verifier; Dorothy Calland February 6,1974

VERIFICATION BRANCH

PLOTTER NOTE TO EDP (AMC)

SURVEY H-9344 (7426 40-1-73) OPR 436

This branch has completed the verification of the preliminary position overlay. (01/02/74) There are about 146 records to be changed, of these 54 were rejected by the field. Punched cards for changes herewith.

After the above changes have been made, please furnish this branch with a sounding printout.

At the time of the sounding overlay, position 2121 thru 2386 may need more than the usual 3 level excess.

DCC

William L. Jonns
William L. Jonns
Chief, Verification Branch

Verifier: B.J. Stephenson 1 May 1974

Verification Note to EDP-AMC
Survey H-9344 (7426-40-1-73)

The personnel of this branch have completed the verification of the sounding overlay for this survey. There were approx. 300 changes of which 276 were replacement of soundings, 23 were soundings either excessed or plotted and 1 sounding was plotted on time and course.

Correction cards have been punched and will accompany the sounding printout. When the corrections have been entered in the I & R files please furnish this office with a smooth sheet,& final position overlay with electronic arcs. Plot smooth sheet on MYLAR with soundings rotated 15 degrees. Point of origin for distortion tick is as follows:

Lat: 28 - 42' - 32" North
Long: 80 - 51' - 36" West

bjs/WLJ

W.L. JONNS
Chief, Verication Branch

Norfolk, Virginia

EDP NOTE TO VERIFICATION (AMC)

H-9344 FIELD NO. 7426-40-1-73 OPR 434

The following overlays and printouts are being sent:

Overlays:

___ Signal Overlay
✓ Preliminary Position Overlay (PPO)
___ Preliminary Sounding Overlay (PSO)
___ Excess Overlays No.
___ Smooth Sounding Overlay
___ Smooth Position Overlay

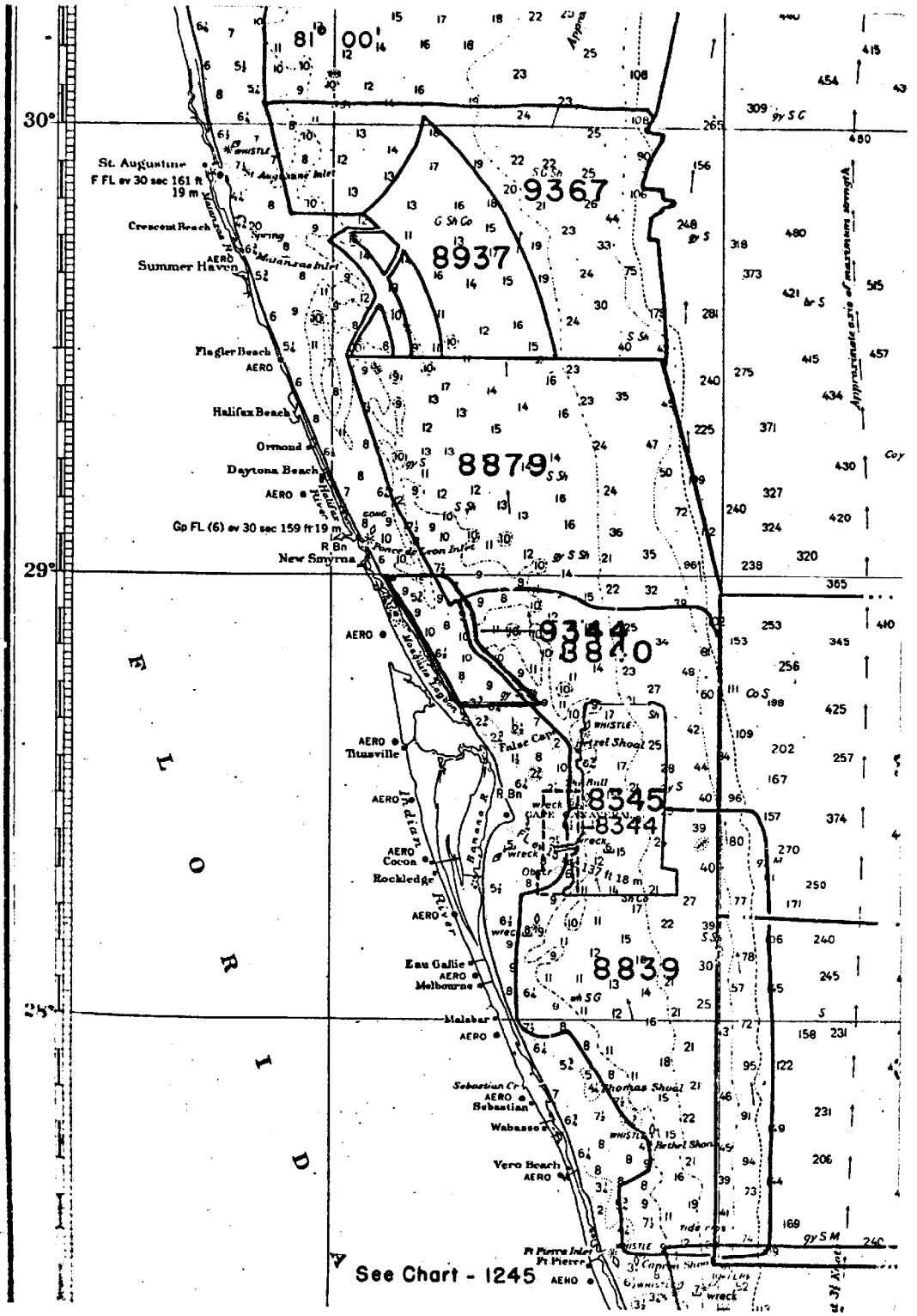
Listings:

___ Signal Cards
___ Signals Used
___ Parameters
✓ Positions versus Record Numbers
✓ Statistics
✓ Position Printout
___ Hourly Heights and Correctors
___ Velocity Tables
___ TC/TI
___ TRA and Velocity Table Changes
___ Sounding Printout

Remarks: Due to the number of control parameter sets, Del norte arces were plotted on a seperate sheet,

Blue – Edgewater Tank- 28°57'47.37 80°54'12.57
Red - Signal #164 – 28°50'11.00 80°45'46.79
Brown - Signal #152 – 28°52'56.18 80°47'35.14
Green - Signal #144 – 28°55'50.14 80°49'38.95
Violet - Signal #148 – 28°54'24.51 80°45'33.86

Data Preparation Group


81° 00'
30°
29°
25°
9367
8937
8879
9344
8840
8345
8344
8839
St. Augustine
F FL ev 30 sec 161 ft 19 m
Crescent Beach
Summer Haven
Flagler Beach
Halifax Beach
Ormond
Daytona Beach
Go FL (6) ev 30 sec 159 ft 19 m
New Smyrna
Titusville
Cocoa
Rockledge
Eau Gallie
Melbourne
Malabar
Sebastian
Wabasso
Vero Beach
Ft Pierre
FLORIDA
See Chart - 1245

(3-25-61)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9344

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
11485	4-16-75	G Moore	~~Prelim~~ Part Before ~~After Verification~~ Review Inspection Signed Via
(843B)			Drawing No. No crit. Corrs
11484	4-17-75		~~Full~~ Part Before ~~After Verification~~ Review Inspection Signed Via
(1245)			Drawing No.
11480	9/12/75	J. Sherman	~~Full~~ Part Before ~~After Verification~~ Review Inspection Signed Via
(1111)			Drawing No. No Critical Corrs. Mary 1245
11485		Meyer	~~Full Part~~ Before ~~After Verification~~ Review Inspection Signed Via
(843 BP)	1 March 77	Alex. Radichevich	Drawing No.
			Adequately
11484	2 Jan 79	Alex. Radichevich	~~Full Part~~ Before ~~After Verification~~ Review Inspection Signed Via
			Drawing No.
			Adequately
11480	5-13-80	Allen Zyb	~~Full Part~~ Before ~~After Verification~~ Review Inspection Signed Via
			Drawing No. 32
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

FORM C&GS-5352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63